STAT [redacted]

FOURTH MONTHLY NARRATIVE REPORT

15 November 1964

REFERENCE

STAT [redacted]

Declass Review by NGA.

REPORTING INTERVAL

10 October 1964 - 10 November 1964

OBJECTIVE

The objective of this program is the design, construction, and testing of a prenormalizing system to be used for problems of automatic target identification on aerial imagery. The prenormalizer will scan the image and, by special filtering techniques, produce a set of measurements which have minimal change with translation and rotation of the specific image on the scene. Testing is to be accomplished on the CONFLEX I Adaptive Recognition System.

STATUS OF ACTIVITIES AND ACCOMPLISHMENTS

Analysis

During this reporting interval, time has been taken to sift through and organize the results obtained from the effort of previous months. Since the design of the prenormalizing system has been essentially completed, emphasis will now be turned toward the details of working with the breadboard system. Thought must be given to the sampling process which

will be used with the CONFLEX System. The gates which allow the analog signals to pass to the summing unit will be controlled by the M-sequence generators in CONFLEX.

The breadboard system will also permit a flexibility in the choice of signals being fed to the circular analysis channels; time will be spent determining which combinations of inputs will provide the most information in the output system.

THE PRENORMALIZING SYSTEM

The scanning, filtering, and readout systems of the prenormalizer are at the same level of development. The design of each system is more than 90 percent complete, and each is well into the fabrication phase. Remaining engineering tasks include completing the final details of a lamp driver circuit for readout display, the preliminary filters, and the threshold amplifiers to provide sign and magnitude data to CONFLEX I.

The remaining effort on the optical scanner is the design of the mounting configuration for the optical pieces. The remainder of the tasks relate to chassis and panel layouts. Tentative plans have been made for these layouts, and they are currently in the hands of the design engineer.

TIME SPENT ON PROJECT (CUMULATIVE TOTAL)

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	84 Hours
	280 Hours

TECHNICAL AGREEMENTS MADE

None

DIFFICULTIES ENCOUNTERED

None

PROGRAM FOR THE NEXT INTERVAL

During the next reporting interval, a close liaison will be maintained between the electrical and mechanical design groups to work out assembly details. Cabinets for housing the system have been ordered. A sizeable portion of the circuit boards needed in the equipment will be completed during the next interval, and they will be tested and prepared for mounting when the cabinets arrive. The sample slit cylinder for the scanner will be formed during the next few weeks, at which time the in-house machining can be carried out to provide the precision slit arrangement. It is expected that a large portion of the fabrication effort will be completed during this interval so that assembly can begin in early December.

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SUBMITTED B

Project Engineer

Vice President,
Engineering